

REMARKS: CLAIMS 2, 4, 5, 9, 12-14, AND 16-20 SHOULD ALSO BE ALLOWED

This is in response to the Office action mailed August 7, 2007, in which claims 6, 10 and 11 were allowed; claims 9, 19, and 20 were indicated to be allowable pending being rewritten to incorporate the subject matter of their parent claims; and claims 2, 4, 5, 7, 8, and 12-18 were rejected. The applicant is appreciative of the allowance of claims 6, 10, and 11 and the indicated allowability of claims 9, 19, and 20.

The applicant herein cancels claims 7, 8, and 15, and amends claims 2, 4, 5, 9, 14, 16, 17, 19, and 20. The applicant respectfully requests that the present amendments be entered, that the rejection of claims 2, 4, 5, 12-14, and 16-18 be reconsidered and that these claims be allowed in light of the claim amendments and the remarks herein.

CLAIMS 9, 19, AND 20 COMPLY WITH
THE INDICATED CONDITIONS FOR ALLOWABILITY

On page 4 of the Office action, claims 9, 19, and 20 were objected to for being based on rejected claims, and indicated to be allowable pending being rewritten in independent form, including all the limitations of their parent claims. The applicant herein amends each of claims 9, 19, and 20 to be in independent form, including all the limitations of their respective prior parent claims. The applicant therefore respectfully submits that claims 9, 19, and 20 are presently in condition for allowability as previously indicated in the Office action, and requests that these claims now be allowed.

CLAIMS 2, 4, 5, AND 16-18 ALSO COMPLY WITH
THE INDICATED CONDITIONS FOR ALLOWABILITY

Claims 2, 4, and 5 are herein amended to be dependent on claim 9; claim 16 is herein amended to be dependent on claim 20; and claim 17 is herein amended to be dependent on claim 19. Claim 18 remains dependent on claim 16. Each of claims 2, 4, 5, and 16-18 is therefore now dependent on, and recites further elements to, a respective one of claims 9, 19, and 20, which in turn are now in compliance with the prior indicated conditions for allowability, as

indicated above. The applicant therefore respectfully submits that claims 2, 4, 5, and 16-18 are also now in compliance with the indicated conditions for allowability, and requests that the rejection of these claims also be reconsidered and that these claims also be allowed.

CLAIM 14 IS NOT RENDERED OBVIOUS
BECAUSE BLACK AND CLARK DO NOT TEACH OR SUGGEST ALL ITS ELEMENTS

In the Office action, claims 2, 4, 5, 7, 8, and 12-18 were rejected under 35 U.S.C. 103(a) with reference to U.S. patent no. 4,185,846 issued to Black and U.S. patent no. 6,476,603 issued to Clark et al. The applicant respectfully submits that the basis for these rejections as applied to claims 2, 4, 5, 7, 8, and 16-18 is now moot following the amendments and remarks as discussed above. Claims 12-14 were also among those rejected under §103 with reference to Black and Clark. Claim 14 is amended herein in independent form, while claims 12 and 13 remain dependent on claim 14.

The basis for the rejections includes the assertion on pp. 2-3 of the Office action, that "Clark et al discloses a carriage having a plurality of wheels for engaging rails. Each wheel has a flange on either side to engage the sides of the rails..." However, Clark does not disclose any wheel having a flange on either side of the wheel to engage the sides of the rails. On the contrary, Clark discloses only that, "The wheel assemblies 120 each include a flanged wheel 122 configured for riding over a rail, the flange serving to laterally steer and stabilize the carriage 10 along the track." (Col. 7, lines 15-18.) This refers to a singular flange on one side of the wheel. Clark further emphasizes the single flange on only one axial side of the wheel, saying, "The 'gage side' is defined as the side of the rail along which rail car wheel flanges run." (Col. 1, lines 61-62.) Clark therefore clarifies that only one side of the wheels have a flange, and only one side of the rail has a wheel flange running along it.

Clark later further emphasizes this teaching: "The air/hydraulic gaging cylinders 123, 124 are pneumatically actuated lateral structural members that can be varied in length to adjust the gage of the sensor carriage 110. During rail inspection, the air/hydraulic gaging cylinders 123, 124 are set to maintain constant pressure of the carriage wheel 122 against the rail

2 so as to provide a stable platform for both ultrasonic and induction testing systems.” (Col. 7, lines 30-37.) Clark therefore teaches the desirability and importance of actuated lateral structures to maintain a constant pressure of the single flange of the carriage wheel against the gage side of the rail. This function would be physically inconsistent with a second flange on the opposing side of the rail, an element that would interfere with or obstruct the gage actuating that Clark teaches. Clark therefore distinctively teaches away from a second flange on the opposing side of a wheel, and definitively does not suggest such an element.

Therefore, the combination of Clark and Black does not teach or suggest the element of wheels that comprise outwardly protruding flanges on first and second axially opposing ends thereof. Clark and Black further do not teach or suggest the flanges of wheels being configured such that when the wheels are operatively engaged with a rail, the first and second flanges of each of the wheels are operatively disposed along diametrically opposing first and second side-walls of the rail on first and second sides of the first rail. Clark and Black therefore definitively do not teach or suggest all the elements of claim 14.

The applicant therefore respectfully submits that a prima facie argument for obviousness has not been established for claim 14, in terms of the prior art disclosing or suggesting all the elements of the claim. This is prior to considering whether a person of ordinary skill and ordinary creativity in the art also would have perceived a reason for combining the elements in the claimed combination; the person of ordinary skill and creativity does not perceive reasons to combine elements that have not first been disclosed or suggested by the prior art, for purposes of analyzing obviousness under 35 U.S.C. 103(a).

The applicant therefore respectfully submits that claim 14 is not rendered obvious by the cited references, and requests that the rejection thereof be reconsidered and claim 14 allowed. Because claims 12 and 13 are dependent on claim 14 and add further elements thereto, the applicant requests that their rejections also be reconsidered and that claims 12 and 13 also be allowed.

CLAIM 14 IS NOT RENDERED OBVIOUS BECAUSE A PERSON OF ORDINARY SKILL AND CREATIVITY IN THE ART WOULD NOT HAVE COMBINED BLACK AND CLARK

In the alternative, even if it were not so that the prior art does not disclose or suggest all the elements of claim 14 (and its dependent claims, 12 and 13), the applicants respectfully submit that a person of ordinary skill and ordinary creativity in the art also would not have been motivated to make the claimed combination and would not otherwise have perceived a need for or a problem to be resolved by the claimed combination. This lack of obviousness for the claimed combination can be seen by several factors, including that Black and Clark are from non-analogous arts, such that there was no common sense rationale to combine Black and Clark; Black and Clark teach away from their combination; and knowledge of Clark would have been outside the ordinary level of skill, creativity, and common sense of a person having ordinary skill in the art.

The importance of these factors was reaffirmed by the U.S. Supreme Court in its decision in *KSR Int'l. Co. v. Teleflex Inc.*, 550 U. S. _____, 550 USPQ2d 1385 (2007). While *KSR* held that obviousness cannot be evaluated with overly rigid formalities, it also reaffirmed the need to adhere to the *Graham* factors to evaluate obviousness properly, rather than trying to interpret a mere collection of elements as evidence of obviousness. As the Supreme Court reaffirmed in *KSR*, “A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art... inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” *KSR Int'l. Co. v. Teleflex Inc.* (slip op. at 14-15). The rejection of claim 14, in addition to lacking a showing that all its elements are taught or suggested by the prior art, also constitutes a prime example of what the Supreme Court here cautioned against, of collecting individual elements disclosed by widely disparate areas of prior art, without properly evaluating whether such a combination would have been obvious. The factors of non-analogous art, references teaching away from each other, and the ordinary level of skill in the pertinent art are of critical importance for protecting the inventive and patentable combinations of the present claims from an unfairly

broad application of §103, and indicate together in the present case that claim 14 is not obvious and should be allowed.

CLAIM 14 IS NOT RENDERED OBVIOUS

BECAUSE BLACK AND CLARK ARE NOT FROM ANALOGOUS ARTS

Black and Clark do not provide prior art the scope and contents of which would render the present claims obvious, because they are not from analogous arts. Black is directed to a rough terrain creeper, while Clark is directed to a brush assembly for magnetic induction testing of the structural integrity of railroad rails. The brush assembly involves engaging a surface and conducting electricity to and from the railroad rails, for use in evaluating structural flaws thereof. The failure of analogy of these disparate arts is clear, except perhaps as tainted by hindsight knowledge due to the present application. Quite simply, the field of art concerned with applying magnetic induction to railroad rails to investigate their structural integrity has no common sense connection with the field of art of mechanic's creepers.

The question is not whether it would have been possible to find and consider the combination of all elements, but whether combining the elements in the way recited in the claim would have been non-obvious and inventive, as opposed to merely part of the ordinary course of progress by a person of ordinary skill in the art. It is likely for any given invention that its individual elements are each disclosed in some type of references found in one or another fields of art, and may be much more easily collected together once the benefit of hindsight is obtained from the disclosure of the patent application, no matter how disparate the fields of those references. But this taken by itself is a trivial accomplishment, without being coupled to the investigation of what combination of elements a person of ordinary skill in the art, at the time the applicant conceived of his invention, would have been motivated to investigate and consider. Of direct relevance to this question of obvious versus inventive development, is the question of what type of references a person of ordinary skill in the art would, and would not, be motivated to examine to solve problems in that field of art. The question here is not at all what individual elements are found disclosed in various references once the references are in hand, but instead,

what field of references that person of ordinary skill in the art might think of as reasonably pertinent to examine to solve known problems in that particular field of art.

In the present case, for a person in the art of creepers trying to solve problems in the art of creepers, it might have been obvious to examine references involved in the art of creepers, as well as arts related to the same purposes, revolving around maintenance and repair of vehicles. On the other hand, it would not likely have been obvious to examine references involved in the art of using magnetic inductance sensors for inspecting railroad rails for mechanical defects. This distinction derives directly from the difference between, on the one hand, working backward from the endpoint of the elements recited in the present claims and investigating all fields of art for those specific elements, and on the other hand, properly avoiding hindsight by working from the starting point of the problems to be solved in the art, and looking at references in fields of art that are known or obvious to be reasonably pertinent to solving the known problems in the field of the invention. Properly avoiding hindsight and properly adhering to those arts that are of obvious relevance on their face to the problems of maintaining and repairing motor vehicles, it simply would not have obviously occurred to a person of ordinary skill in the art of mechanic's creepers to launch into an investigation of the art of magnetic inductance sensors for inspecting railroad rails for mechanical defects, for inspiration on how to resolve known problems in the art of creepers.

The Office action does provide a purported rationale for why a person in the art might have been motivated to make the claimed combination; however, this rationale does not comply with the legal standards for showing obviousness, but instead argues that the utility of the end product of combining the claimed elements, establishes the motivation to make the claimed combination. Specifically, the Office action asserts that "It would have been obvious to one of ordinary skill in the art to have used wheels, like those found in Clark et al, as a teaching to show that rail engaging wheels, like that of Black would better engage the rails with flanges on either side. The flanges would allow for better stability and control of the creeper as the user moved along the rails, especially with the support structure raised so the user can work above." (O.A., p. 3.) Leaving aside the fact that Clark does not teach the element of wheels with flanges

on either side (as discussed above), this argument for a reason to combine the elements from the different references reduces to an assertion that the combination has utility, and that such utility would have served as the reason why a person of ordinary skill in the art would have made the combination. However, the applicant respectfully submits that this argument must not be sustainable because it is contradictory to the patent statute. The patent statute requires utility for any claimed invention to qualify for a patent (§101). However, if utility of the claimed combination of elements is enough in itself to show the obviousness of making the claimed combination, then any claimed combination having utility under §101 must be obvious under §103. Therefore, if the standard applied in the Office action were followed and utility itself were accepted as proof of obviousness, then any combination of known elements that meets the test of utility would fail the test of non-obviousness, and no invention could qualify for a patent. Mere utility of the claimed combination therefore cannot possibly be a sufficient standard by which to evaluate whether a person of ordinary skill in the art would have perceived an obvious reason to make the claimed combination.

Black and Clark share little if anything in common, in terms of structure, function, or conditions of use. A person of ordinary skill in the art of the present invention would not reasonably have expected to solve the problems resolved by the subject matter of the present claims by considering references in the art of a brush assembly for conducting electricity to and from railroad rails for use in evaluating their structural integrity by magnetic induction. Black and Clark also lack any overlap in their classifications, domestic or international, or fields of search. A person of ordinary skill in the art of either one of the two references would not have considered investigating the field of art of the other reference as an analogous or reasonably pertinent source of knowledge for a particular problem.

The non-analogy of Clark to the art of the present invention therefore further shows that claim 14 is not rendered obvious by the cited references.

CLAIM 14 IS NOT RENDERED OBVIOUS
BECAUSE BLACK AND CLARK TEACH AWAY FROM THEIR COMBINATION

The differences between Black and Clark and the present claims are too great for the claims to be obvious, because Black and Clark teach away from each other. This provides compelling evidence that a person of ordinary skill in the art at the time the present claims were invented would not have had motivation to combine the Black and Clark references. As the Supreme Court recently reaffirmed, "...when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious." *KSR Int'l. Co. v. Teleflex Inc.* (slip op. at 12), citing *U.S. v. Adams*, 383 U.S. 39, 40 (1966).

As a particular example, Black emphasizes the importance of the tracks or sliding members being moveably connected together, and describes "the major advantage" of its subject matter to involve characteristics that are "due to the track means which are moveably connected to the platform or body support member..." (col. 2, lines 36-42; see also e.g. col. 1, lines 40-44, et al.; emphasis added). This teaches away from a combination with Clark, and teaches away from the subject matter of claim 14. Black also emphasizes the forms of terrain on which the user chooses to temporarily lay the device, including the tracks. Black therefore further teaches away from a combination with a reference such as Clark that teaches a structure that, far from enabling a device that is freely positionable on terrain of the user's choosing and having a platform connected to its tracks, instead deals with railroad tracks that have already long fixed in place, and with a moveable platform that temporarily contacts the tracks without being connected thereto.

Black also devotes a significant proportion of its disclosure to describing the capabilities of the creeper to support a user reclining thereon and enabling the user's control of the creeper. This also constitutes a teaching away from the disclosure of Clark, since it emphasizes the importance of a user reclining on the creeper and engaging in useful aspects of the creeper while thus reclined, while Clark teaches a device that is not designed to support a user thereon.

As noted above with reference to the lack of teaching of all the elements of claim 14 in the cited references, Clark also affirmatively teaches away from the subject matter of claim 14. Clark teaches, "The air/hydraulic gaging cylinders 123, 124 are pneumatically actuated lateral structural members that can be varied in length to adjust the gage of the sensor carriage 110. During rail inspection, the air/hydraulic gaging cylinders 123, 124 are set to maintain constant pressure of the carriage wheel 122 against the rail 2 so as to provide a stable platform for both ultrasonic and induction testing systems." (Col. 7, lines 30-37.) Clark therefore teaches the desirability and importance of actuated lateral structures to maintain a constant pressure of the single flange of the carriage wheel against the gage side of the rail. This function would be physically inconsistent with a second flange on the opposing side of the rail, an element that would interfere with or obstruct the gage actuating that Clark teaches. Clark therefore distinctively teaches away from a second flange on the opposing side of a wheel, providing further evidence that both references affirmatively teach away from combining the teachings of the two.

As the Supreme Court recently reaffirmed in *KSR*, when the prior art teaches away from combining known elements, a claimed invention that successfully combines them is more likely to be non-obvious, even where the claimed invention otherwise merely alters the prior art by substituting elements thereof with other previously known elements. *KSR Int'l. Co. v. Teleflex Inc.* (slip op. at 12), citing *U.S. v. Adams*. On the other hand, the present case is all the more clearly non-obvious, where not only do both of the cited references teach away from the claimed combination, but the subject matter of claim 14 also differs far more from the cited references than by the mere substitution of known elements in an otherwise known device, and where the cited references do not disclose all the elements of the claimed invention, as discussed above.

The teaching away from the claimed combination by Black and Clark therefore further shows that claim 14 is not rendered obvious by the cited references.

CLAIM 14 IS NOT RENDERED OBVIOUS

BECAUSE KNOWLEDGE OF CLARK IS OUTSIDE THE ORDINARY SKILL IN THE ART

The third of the *Graham* factors that must be considered in evaluating obviousness is the ordinary level of skill of persons in the pertinent art. The rejection of claims 12-14 does not take into account the level of ordinary skill in the art of the present invention, because that level of ordinary skill, creativity and common sense of those in the art of creepers does not include the breadth of knowledge to make the cited combination.

Illustrative factors that may be considered in determining level of ordinary skill in the art include the educational level of the inventors, the type of problems encountered in the art, prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Daiichi Sankyo Co., Ltd. v. Apotex, Inc.*, (Fed. Cir. 2007) (cit. omitted). Given the art of creepers, the level of sophistication of the technology is relatively modest; the rapidity with which innovations are made also is relatively low, as is supported by the fact that the primary reference for the current rejection, Black, was applied for a full 30 years ago, in 1977. These illustrative criteria for evaluating the factor of the ordinary level of skill in the art indicate that this factor requires a relatively restricted scope for obviousness, and conversely, a relatively wide scope for allowing novel combinations of elements as non-obvious. In *Daiichi Sankyo*, the Federal Circuit held that the lower court had erred in finding that a patent would have been non-obvious when applied for, because the ordinary level of skill in the pertinent art was actually much higher than the district court had estimated, which rendered novel combinations more likely to be obvious. In particular, the Federal Circuit held that the person with the higher standard of ordinary skill in the art would likely have learned from a specialized reference that a person at the lower standard of ordinary skill would likely not have been aware of. Conversely then, a field of art with a relatively lower level of ordinary skill in the art, as in the present case, must require that novel combinations are more likely to be obvious, and that specialized references in other fields are less likely to be consulted.

In particular, it is not likely that the ordinary level of skill in the art of creepers encompasses education in and professional familiarity with technologies related to a brush assembly for conducting electricity to and from railroad rails for use in evaluating their structural integrity by magnetic induction. Therefore, a proper adherence to the third of the *Graham* factual inquiries also indicates that Clark does not support an allegation of obviousness for claim 14.

CLAIM 14 IS NOT RENDERED OBVIOUS: CONCLUSION

The applicant therefore respectfully submits that the combination of Black and Clark does not support an assertion of non-obviousness of claim 14. On the contrary, claim 14 describes a new and non-obvious invention, deserving of allowance. The applicant therefore respectfully requests that the Examiner reconsider and withdraw the rejection of claim 14, and of its dependent claims, 12 and 13.

NO NARROWING INTERPRETATIONS IMPLIED

The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered exhaustive of the facets of the invention which are rendered patentable, being only examples of certain novel features and differences, which Applicants have opted to comment on as illustrative examples.

Furthermore, in commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the references and particular subject matter of the present application may have been commented on, even though such differences do not appear in all of the claims. It is not intended by commenting on any such distinctions to create any implied limitations in any particular claims of the present application.


CONCLUSION: CLAIMS 2, 4, 5, 9, 12-14, AND 16-20 SHOULD ALSO BE ALLOWED

The applicant respectfully submits that a variety of factors, as discussed above, weigh strongly in favor of allowing the previously rejected claims of the present application. The applicant therefore requests that the Office reconsider and withdraw the present rejection of these claims and allow claims 2, 4, 5, 9-14, and 16-20, in addition to the previously allowed claims 6, 10, and 11.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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